

V. Two Communications from the late Professor Henderson, containing Elements and an Ephemeris of Mauvais' Second Comet.

VI. Observations of Mauvais' Second Comet, made at Starfield, by W. Lassell, Esq.

The instrument used was the 9-feet equatorial Newtonian telescope of 9 inches aperture, and 112 inches focal length, having applied to it a parallel-wire micrometer, carrying a power of 96. When practicable, distances, both of right ascension and declination of the comet, were taken from the nearest star of sufficient magnitude to bear a slight illumination, and the approximate place of this star was obtained by comparison with the nearest star contained in the Astronomical Society's Catalogue.

In measuring these distances the author deemed it essential that the star of comparison should be so nearly of the same declination as the comet, that both should pass well through the field of the micrometer, while the telescope was clamped. He thus obtained the difference of declination in revolutions and parts of the micrometer, while the difference of the times of transit over the declination wires gave the difference of right ascension.

The following are the resulting places of the comet, subject to correction for parallax, and for whatever error may be found to exist in the determination of the places of the stars of comparison:—*

Day.	Sidereal Time.	Right Ascension.	North Declination.
1844.	^h ^m ^s	^h ^m ^s	° ' "
July 22	19 36 24.9	15 8 29.67	
	19 38 50.8	.....	37 11 33.1
26	19 26 27.75	14 52 12.7	
	19 23 45.25	.....	34 9 16.35
29	19 20 48.8	14 41 23.1	31 48 8.9
Aug. 3	19 13 35.1	14 25 51.08	
	19 15 54.5	.....	27 53 22.3
10	19 26 46.2	14 8 17.2	
	19 28 55	.....	22 30 36.7
14	19 8 11.7	13 59 5.75	
	19 4 41.5	.....	19 33 45.4
27	19 27 45.8	13 39 51.9	10 45 2.8
29	19 9 56	13 37 8.94	9 28 55
31	19 32 37.15	13 35 1.3	8 17 30.66
Sept. 2	18 53 31.4	13 32 43.96	7 5 15.8
5	18 53 11.7	13 29 28.8	5 19 57.9
7	19 0 42.9	13 27 21.7	4 11 42

* The observations themselves are in the possession of the Society.—Sec.

On the last three days no stars were favourably situated for direct comparison; and the places of the comet for those days were obtained by applying the same instrumental corrections to its observed places, which were found requisite to be applied to the observed places of the nearest known stars; with further corrections also for difference of refraction.

Starfield Observatory, Dec. 7, 1844.

VII. Observations of Mauvais' Second Comet and De Vico's Comet, and of an Occultation of a fixed Star by the Moon, made by C. Rumker, Esq. at Hamburg. Communicated by Dr. Lee.

Results of the Observations of Mauvais' Second Comet.

Day.	Mean Time at Hamburg.	Apparent Right Ascension of Comet.	Apparent North Declination of Comet.	No. of Obs.
1844.	h m s	° ' "	° ' "	
July 12	11 33 20	239 58' 32" 4	43 52' 11"	3
16	10 34 15	234 27 38.5	41 28 18	8
17	10 49 14	233 8 50.8	40 48 15	21
20	12 49 45	229 22 17.8	38 39 27	3
22	10 53 52	227 11 30.1	37 14 33	12
23	10 34 2	226 7 55.2	36 30 15	14
24	10 34 6	225 5 22.5	35 44 37	13
25	10 18 40	224 5 20.3	34 59 7	2
Aug. 1	10 42 25	217 57 13.4	29 28 52	10
3	10 33 25	216 28 50.0	27 54 49	4
5	10 16 19	215 6 58.6	26 21 38	20
7	10 18 52	213 50 23.7	24 48 39	10
8	9 18 45	213 15 38.6	24 4 22	2
9	10 1 55	212 39 30.0	23 17 22	9
10	9 31 53	212 6 34.0	22 33 7	9
11	9 30 53	211 33 59.5	21 48 14	9
13	9 45 10	210 31 54.3	20 18 58	9
15	9 43 49	208 34 26.6	18 51 36	5
21	9 41 54	207 3 22.0	14 40 40	8
29	8 37 17	204 20 53.2	9 32 21	9
30	8 37 17	204 2 58.6	8 55 19	8
31	8 29 28	203 45 6.2	8 18 37	10